# M&S Education

## Presented to:

*Air Force Modeling and Simulations*
*Education Tiger Team*

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# Why an M&S Education Project ?

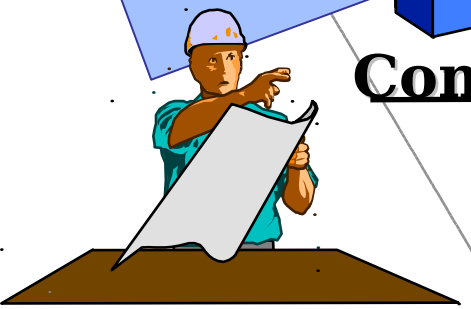
## M&S Master Plan Objective 6.2

**"Managers need to be educated about the advantages and disadvantages of different M&S applications and the functions they support."**

**Source: DoD MSMP, Oct 95**

# M&S Education

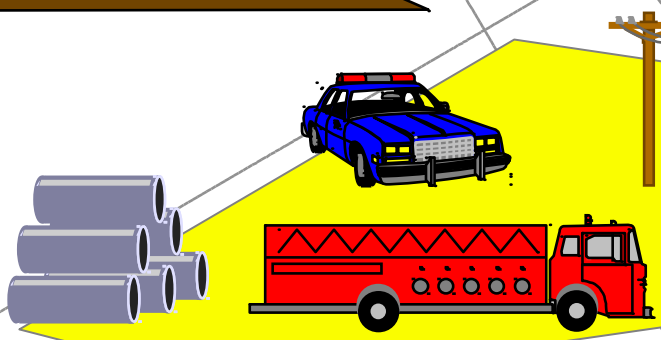
## DoD M&S Strategy: An Analogy to City Plann



**Common Technical Framew**

- *High Level Architecture*
- *CMMS (common world view)*
- *Data Standards*

**All simulations and live interfaces**



**Common Services**

- *Help Desks & Educatio*
- *VV&A policy & procedures*
- *Resource repositories*
- *Environmental databases*
- *Communications*
- *Supporting software & tools*

**Payoffs: Interoperability and reuse = capability and cost-effec**

# M&S Education Products

- *M&S Staff Officer Course (MSSOC)*
- *Executive Level Orientation (ELO)*
- *Program Management Office M&S Workshop*
- *MS 101*
- *NATO M&S Staff Officer Course*
- *HLA Education/Outreach*
- *M&S Education Functional Working*

# M&S Education

## M&S Staff Officer Course (MSSOC)

### Objective

**Provide a broad understanding of DoD modeling and simulation (M&S) terms, concepts, organizations, and issues. Enhance students' ability to:**

- ***Function effectively and efficiently as M&S staff officers despite minimal M&S experience***
- ***Prepare staff actions that incorporate requirements for M&S***
- ***Apply current and emergent policies, regulations, and technologies to organizational decisions regarding M&S***

# M&S Education

## MSSOC Curriculum

**Monday**

***Fundamentals:***
- M&S Scope and Basics
- History of M&S
- M&S Today

***Common Services:***
- VV&A
- MSOSA
- MSRR
- Communication System
- Security

**Thursday**

**Tuesday**

***CTF:***
- DoD M&S Strategy
- Data Standards
- CMMS
- HLA

**Friday**

***Future:***
- Today's Reqts and the Ne Generation of Solutions
- Emerging Technologies
- Other M&S Opportunities

**Wednesday**

***epresentation:***
- Environment
- Systems
- Human Behavior

***Other Opportunities :***
- M&S Tour
- Guest Speakers
- Panel Discussion

# M&S Education

## MSSOC Student Profile (Through 98-10)

| | Acquisition | Analysis | Training | TOTAL |
|---|---|---|---|---|
| USA | 21 | 33 | 43 | 97 |
| USN | 25 | 21 | 12 | 58 |
| USMC | 5 | 4 | 4 | 13 |
| USAF | 37 | 47 | 35 | 119 |
| USCG | | | 1 | 1 |
| DoD/JT | 11 | 34 | 27 | 72 |
| Non-DoD | 3 | 5 | 8 | 16 |
| Allies | 2 | 1 | 9 | 12 |
| *TOTAL* | *104* | *145* | *139* | *388* |

# M&S Education

## Participating Army Organizations

- 3rd Army
- STRICOM
- HQ FORSCOM
- HQ TRADOC
- U.S. Army John F. Kennedy Special Warfare Center & School
- USASIGCEN & Ft. Gordon
- US Army Armor School & Ft. Knox
- US Army Test and Eval. Command
- US Army Reserve Command
- US Army Aberdeen Test Center
- USALMC
- National Simulation Center
- Combined Arms Center
- LIWA-APD (Modeling and Simulation Branch)
- Army Model and Simulation Office
- Army Topo Eng Center
- Center for Land Warfare
- ARSOF SIMCEN
- Warrior Preparation Center
- PM Commanche Project

- Fort Hood Battle Sim Center
- Office of Dir for Info Systems
- PM for Instr. Targets & Threat Sims
- US Army Space Program Office
- SARDA
- US Army Cmd & Gen Staff College
- Dept Chief of Staff for Info. Mgmnt
- US Army National Guard Bureau
- 1st INF Div G3
- 1ST ARMD Div, G3 Exercises
- 28th Trans Bn
- 21st TAACOM
- PEO Ground Combat
- MCCS-HHC

# M&S Education

## Participating Navy and USMC Organizations

- Combat Development Cmd
- Systems Command Training Systems
- Operational Test & Eval Activity
- USMC M&S Management Office
- Office of Science & Innovation, MCCDC

- Military Sea Lift Command
- CINCUSNAVEUR
- SPAWAR
- NAVAIR
- COMOPTEVFOR
- NAWCTSD
- NAWCWPNS
- NSWCDD
- PEO for Theater Air Defense
- Naval Warfare Assessment Div
- Dir Naval Res OPO 95193
- Naval Sea Systems Command
- Naval Air Systems Command
- Office of Naval Research
- TSG Program
- Dept of Navy Center of Excellence
- Navy CDR Ops Test &Eval

Program Exec. Office Undersea Warfare

- Naval Space Warfighting Canter
- US Transportation Command
- BUMED
- Chief of Naval Operations, N6M2

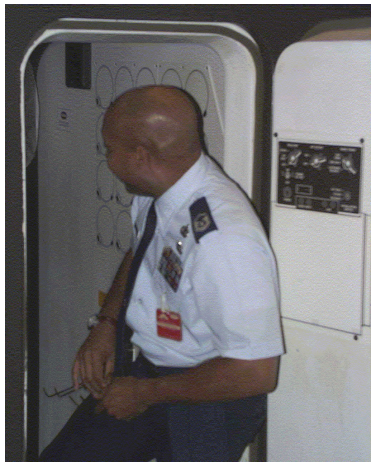
# M&S Education

## Participating USAF Organizations

- HQ USAF/XOC
- HQ USAF/XOWX
- AFSAA
- ASC/YWE
- Space and Missile Systems Center, SMC/MTEP/XREM/TM
- HQ ACC/DOOS AF Institute of Technology
- HQ ACC/DRSM
- HQ ACC/DOTO
- 611 ACF/SC
- Air and Space C2 Agency
- HQ AFOTEC
- AFTAC
- AFCCC/MS
- CADRE/WGN
- Warrior Prep Center
- National Air Intelligence Center
- AFAMS
- USAF Air Command & Staff College
- Air University
- Resources and Ranges
- M&S and Training PAD
- SMC/XRMW
- AF Research Lab Airbase & Env. Tech Div.

- 68 Test Support Squadron
- NASM/AN
- AF Electronic Sys Center
- AF Development Test Center
- 88 Weather Squadron
- National Air & Space Warfare Model
- AF 690 CSS/ENC
- AF Install. & Logistics Directorate
- Edwards Air Force Base
- Human Systems Program Office
- AFOTEC
- Office of Aerospace Studies
- Air Force Space Command

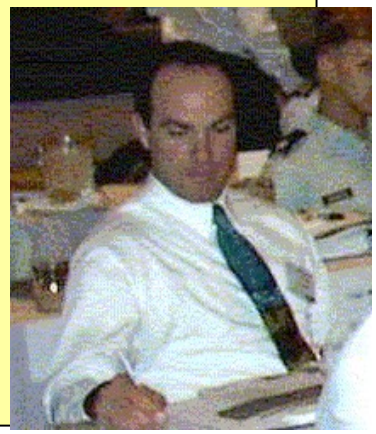
MSSOC



# M&S Education

## Participating DoD Organizations

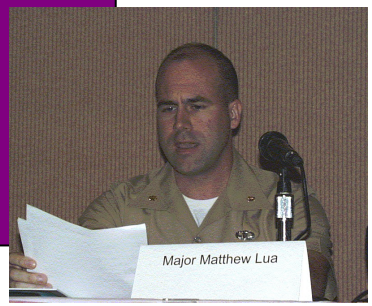
- OSD PA&E Sim & Analysis Center
- OUSD(A&T / DTSE&E)
- OASD (Reserve Affairs)
- DISA
- DMSO
- MSOSA
- MSRR
- DMSTTIAC
- DoD Modeling and Simulation Exec. Agent for Air and Space and Natural Environment
- Spectrum Center
- Ops Test and Evaluation Force
- Logistics Management Institute
- NIMA
- NRO
- DTRA
- BALL
- NSA



# M&S Education

## Participating Joint and NATO Organizations

- USACOM
- USCINCPAC J562
- USCINCLANTFLT
- USSOCOM
- USSPACECOM
- USSTRATCOM
- MTMC TEA
- Joint Warfighting Center
- Joint Program Office for Test & Evaluation
- Joint National Testing Facility
- JSIMS JPO
- BMDO
- Joint Training Analysis Sim Center
- Joint Warfare System
- HQ AIRCENT
- HQ LANDCENT
- HQ BALTAP
- Joint Staff J2, J8



# M&S Education

## MSSOC Around the World

### 1998 Schedule

- MSSOC 98-2:  23-27 Feb, Arlington, VA
- MSSOC 98-3: 23-27 Mar, Alexandria, VA
- MSSOC 98-4: 13-17 Apr, Orlando, FL
- MSSOC 98-5: 18-22 May, Arlington, VA
- MSSOC (for M&S Educators) 98-6: 15-19 Jun, Orlando, FL
- MSSOC 98-7: 13-17 Jul, Arlington, VA
- MSSOC 98-8: 3-7 Aug, Einsiedlerhof, Germany (WPC)
- MSSOC 98-9: 21-25 Sept, Albuquerque, NM
- MSSOC 98-10: 26-30 Oct, Arlington, VA
- MSSOC 98-11: 7-11 Dec, Suffolk, VA

# M&S Education

## MSSOC Around the World

### 1999 Schedule

- MSSOC 99-1: 11-15 Jan, Alexandria, VA
- MSSOC 99-2: 22-26 Feb, Orlando, FL
- MSSOC 99-3:TBD  Mar, Korea (KBSC) (tentative)
- MSSOC 99-4: 3-7 May, Alexandria, VA
- MSSOC 99-5: 7-11 Jun, San Die
- MSSOC 99-6:  14-18 Jun, Honolulu
- MSSOC 99-7: 19-23 Jul, Germany (WPC)
- MSSOC 99-8: 20-24 Sep, Alexandria, VA
- MSSOC 99-9: TBD Oct, Detroit, MI
- MSSOC 99-10: 15-19 Nov, Alexandria, VA
- MSSOC 99-11: 13-17 Dec, Orlando, FL

***Information and applications***
***www.dmso.mil/SOC/***

*NOTE:  Alexandria, VA course at DMSO*

# M&S Education

## Executive Level Orientation (ELO)

### Objectives:

*Help senior DoD executives make better decisions concerning the use of M&S in their programs.*

- Provide M&S orientation.
- Equip them with specific M&S information pertaining to his/her area of interest / influence.
- Ensure senior executives and their staffs know where to go for assistance.

**Ready for presentation - Jan 99**

# M&S Education

## PMO M&S Workshop

### Objectives:

*Help Program Managers (PM) and their staffs apply M&S to the benefit of their programs.*

- Provide M&S orientation.
- Equip them with specific M&S information.
- Combination of presentations and hands-on.
- Ma

***Alpha test modules beginning Feb 99***

# M&S Education

## MS 101

**Objective:**

*Conduct a tutorial that provides basic information for M&S newcomers.*

- M&S overview
- 3 hours
- Enhance presentation through graphic multi-media
- Examples, graphic representations
- I
seminars

***BETA test conducted at I/ITSEC 98 tutorial session (Dec 9***

# M&S Education

# NATO M&S Staff Officer Course

## BACKGROUND

- NATO MSMP describes a need for M&S education in NATO.
  - Sub-objective 2.2: "Provide M&S-related education to the NATO community.
  - Action (1): "Conduct M&S orientation courses on a regular basis."
- Development of a NATO MSSOC will be part of the [illegible] national voluntary contribution (Konwin memo, 4 S[illegible])

## CONCEPT

- DMSO and other member nations' input
- Use DoD MSSOC as a baseline; NATO MSMP as a guide
- Modify DoD MSSOC lessons, as appropriate; Create new lessons, as needed
- Initial course : Fall 99; follow-on options (hosted by various NATO HQs and/or member nations

# M&S Education

# HLA Education/Outreach

- **Integrated DMSO HLA training/outreach program is underway**
  - **no cost to recipients other than TDY costs**
  - **consult schedules and register at HLA Home Page (ht hla.dmso.mil)**

- Regional -- One and one-half to two-day comprehensive introduction to HLA offered monthly at sites varying regionally throughout
- Focused Training -- Half day focused sessions as adjuncts to Regionals or standalone offerings
  - HLA Compliance Testing
  - Adapting Your Simulation to HLA
  - Using Automated Tools to Develop HLA Object Models
- Hands-on Practicum -- twice a month offerings for implementer-level training in use of HLA
- CD-ROM education materials to supplement HLA live training
- HLA Video

# M&S Education

## M&S Education Functional Working Group (MSE

### Purpose

- Advise, assist DMSO in developing education policies, standards, procedures.
- Identify, coordinate M&S education requirements across the community.
- Improve visibility of education opportunities; promote discussion in a consensus-buildi
- Share information with Working Groups, Councils and Service M&S Offices.

### Charter (Draft)

- Establishes the MSEFWG under the EXCIMS and the MSWG.
- Describes mission, scope, membership, organizational relationships, tasks, responsibil resourcing of the MSEFWG.

### Membership

- M&S Working Group (MSWG) organizations (OSD, Jt Staff, Services, DIA, DISA, DARPA, MSEAs, BMDO, DTRA, JWFC)
- Selected members as approved by the formal membership

# M&S Education

## Other Support to the DoD M&S Commu

- **Defense Leadership and Management Program (DL**
  - Staff college-level course for senior DoD civilians
  - 2 hour presentation on M&S Basics, DoD Vision/Stra

- **Industrial College of the Armed Forces (ICAF)**
  - Senior Acquisition Program
  - 1 hour presentation on M&S Basics
  - 2 hour presentation on DoD Vision/Strategy

- **Other programs using MSSOC materials**
  - DSMC, ALMC, USACGSC, Air University, civilian universities